



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/599,034	09/18/2006	Kazuhiko Katsumata	ASAIN0188	3283
24203	7590	04/23/2009	EXAMINER	
GRIFFIN & SZIPL, PC SUITE PH-1 2300 NINTH STREET, SOUTH ARLINGTON, VA 22204			WILSON, GREGORY A	
ART UNIT	PAPER NUMBER		3749	
MAIL DATE	DELIVERY MODE			
04/23/2009	PAPER			

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/599,034	<b>Applicant(s)</b> KATSUMATA, KAZUHIKO
	<b>Examiner</b> Gregory A. Wilson	<b>Art Unit</b> 3749

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 04 September 2008.

2a) This action is FINAL.      2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-8 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-8 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date 9/4/08

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date \_\_\_\_\_

5) Notice of Informal Patent Application  
 6) Other: \_\_\_\_\_

**DETAILED ACTION**

***Priority***

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in PCT/JP04/03669 on 3/18/04. It is noted, however, that applicant has not filed a certified copy of the original foreign application as required by 35 U.S.C. 119(b).

***Allowable Subject Matter***

Prosecution on the merits of this application is reopened on claims 1-8 considered unpatentable for the reasons indicated below:

The indicated allowability of claims 1-8 is withdrawn in view of the newly discovered reference(s) to (EP 1643199 A1) and (EP 1801529A1). Rejections based on the newly cited reference(s) follow.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1, 2 and 4-8 are rejected under 35 U.S.C. 102(b) as being anticipated by (EP 1643199 A1). EP 1643199A1 discloses a double-chamber type heat-treating furnace**

(10, 20) including a hermetically closable cooling furnace (20) incorporating therein a cooling chamber and arranged for cooling an object after being subjected to heating, the cooling furnace has a carrying-in/out door (21a) for the cooling chamber, which is arranged on a side opposite to the side on which the heating chamber is provided and is arranged for carrying the object into and out of the cooling chamber; and a gas-cooling/circulating unit for cooling chamber (24b), which cools and circulates a gas vertically passing through an inside of the cooling chamber, the cooling chamber is capable of surrounding a cooling region in which the object is permitted to be steadily placed and defining, in an inside of the cooling region, and having a gas passageway with a constant cross-section in a vertical direction, a hermetically closable heating furnace incorporating therein a heating chamber disposed at a position adjacent to the cooling chamber and arranged for heating the object (SEE Figure 1) and a transfer unit (15) capable of transferring the object (1) between the heating chamber and the cooling chamber, the heating furnace is adapted to be a vacuum container (SEE column 8, paragraph [0034] of which an interior is exhausted to at vacuum, a heating chamber capable of receiving therein the object, a front door (13) for introducing and delivering the object into and from the heating chamber, a rear door (14) for closing an opening provided for permitting, therethrough, the object within the heating chamber to be moved, a mounting bed (unnumbered, SEE Figure 6) for mounting thereon the object to be horizontally movable back and forth, and a heater (16) arranged for heating the object, the transfer unit includes a plurality of free rollers disposed within the heating and cooling chambers, respectively, and which supports the object at only both ends of

the object (SEE Figure 3) in a direction of width thereof to be movable in a transferring direction, a push-pull member (32) capable of moving while being engaged with the object thereby pushing or pulling the object between the heating and cooling chambers, wherein the push-pull member has a length (Figure 3) such that when a rearmost end of the push-pull member comes to a position close to a first side of heating chamber, an engaging member (unnumbered, but is an identical structure to the applicants element 35) capable of turning up to a higher position thereof where it is engaged with the object to horizontally push and pull the object, and lying down to a lower position thereof where it moves horizontally without being engaged with the object, a frontmost end of the push-pull member arrives at a position located inside the cooling chamber, and a drive unit (rack and pinion, SEE column 8, lines 48-50) arranged at a position adjacent to the heating chamber on a side opposite to a side on which the cooling chamber is disposed and capable of driving the push-pull device.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claim 3** is rejected under 35 U.S.C. 103(a) as being unpatentable over (EP 1643199A1) in view of (EP 1801529A1). EP 1643199A1 discloses the applicants primary inventive concept, as stated above, including a double chamber type heat

treating furnace having a push-pull member capable of pushing or pulling an object between a heating and cooling chamber and includes a drive unit adjacent the heating chamber for driving the push-pull device. EP 1643199A1 discloses that the drive unit has a rack and pinion. EP 1801529A1 teaches a double chamber apparatus including a push-pull member (34) which is driven by a drive unit which includes a horizontally movable chain (37a) connected to a rearmost end of the push-pull member and a sprocket (37b) engaged with the horizontally movable chain propelled by a rotational motor. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains to have modified the transport system of EP 1643199A1 by substituting the drive system of EP 1801529A1 since the examiner takes Official Notice of the equivalence of the drive systems of both EP 1643199A1 and EP 1801529A1 for their use in driving the push-pull member to move objects into and out of a double chamber type heat treating furnace and a selection of either type of driving system would be within the level of ordinary skill in the art.

**Applicant is advised that the Notice of Allowance mailed is vacated.** If the issue fee has already been paid, applicant may request a refund or request that the fee be credited to a deposit account. However, applicant may wait until the application is either found allowable or held abandoned. If allowed, upon receipt of a new Notice of Allowance, applicant may request that the previously submitted issue fee be applied. If abandoned, applicant may request refund or credit to a specified Deposit Account.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory A. Wilson whose telephone number is (571)272-4882. The examiner can normally be reached on 7 am - 4:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve McAllister can be reached on (571) 272-6785. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Gregory A. Wilson/  
Primary Examiner, Art Unit 3749  
April 22, 2009